

READY, SET, GO!

Name

Period

Date

READY

Topic: Using the distributive property

Multiply.

1. $2x(5x^2 + 7)$

$10x^2 + 14x$
Quadratic Binomial

2. $9x(-x^2 - 3)$

$-9x^3 - 27x$
Cubic Binomial

3. $-1(x^4 + 6x^3)$

$-x^4 - 6x^3$
Quartic Binomial

4. $-x(x^2 - x + 1)$

$-x^3 + x^2 - x$
Cubic Trinomial

5. $-3x^3(-2x^2 + x - 1)$

$6x^5 - 3x^4 + 3x^3$
Quintic Trinomial

6. $-1(x^2 - 4x + 8)$

$-x^2 + 4x - 8$
Quadratic Trinomial

SET

Topic: Adding and subtracting polynomials

Add. Write your answers in descending order of the exponents. (Standard form)

7. $(3x^4 + 5x^2 - 1) + (2x^3 + x)$

$3x^4 + 2x^3 + 5x^2 + x - 1$
Quartic Polynomial

8. $(4x^2 + 7x - 4) + (x^2 - 7x + 14)$

$5x^2 + 10$
Quadratic Binomial

9. $(2x^3 + 6x^2 - 5x) + (x^5 + 3x^2 + 8x + 4)$

$x^5 + 2x^3 + 9x^2 + 3x + 4$
Quintic Polynomial

10. $(-6x^5 - 2x + 13) + (4x^5 + 3x^2 + x - 9)$

$-2x^5 + 3x^2 - x + 4$
Quintic Polynomial

Subtract. Write your answers in descending order of the exponents. (Standard form)

11. $(5x^2 + 7x + 2) - (3x^2 + 6x + 2)$

$5x^2 + 7x + 2 - 3x^2 - 6x - 2$
 $2x^2 + x$
Quadratic Binomial

12. $(10x^4 + 2x^2 + 1) - (3x^4 + 3x + 11)$

$10x^4 + 2x^2 + 0x + 1 - 3x^4 - 3x - 11$
 $7x^4 + 2x^2 - 3x - 10$
Quartic Polynomial

13. $(7x^3 - 3x + 7) - (4x^2 - 3x - 11)$

$7x^3 - 3x + 7 - 4x^2 + 3x + 11$
 $7x^3 - 4x^2 + 18$
Cubic Trinomial

14. $(x^4 - 1) - (x^4 + 1)$

$x^4 - 1 - x^4 - 1$
 -2
Constant Monomial

GO

Topic: Using exponent rules to combine expressions

Simplify.

15. $x^{-5} \cdot x^4 \cdot x^{-2}$

x^{-3}

16. $x^3 \cdot x^{-7} \cdot x^{-2}$

x^{-6}

17. $x^4 \cdot x^4 \cdot x^{-1}$

x^7

